U.S. DEPARTMENT OF COMMERCE
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SUMMARY REPORT ON QUALITY OF INTERSTATE WATERS

LITTLE MISSOURI RIVER

(INCLUDING BEAVER CREEK AND LITTLE BEAVER CREEK)

(WYOMING-MONTANA-SOUTH DAKOTA-NORTH DAKOTA)

PUBLIC HEALTH SERVICE, WASHINGTON, D.C.

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15. Supplementary Notes

16. Abstracts Water quality data are reported for Little Missouri River and its tributaries in Wyoming, Montana, South Dakota, and North Dakota. Information is given on: sources of pollution, interference with water uses, stream flow, adequacy of treatment measures, action of official agencies, Public Health Service grants for construction of waste treatment facilities, nature of delays in abating pollution, and time schedule for proposed remedial action. A brief bibliography is included.

17. Key Words and Document Analysis. 17a. Descriptors

17b. Identifiers/Open-Ended Terms

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*Water pollution sampling
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(WYOMING-MONTANA-SOUTH DAKOTA-NORTH DAKOTA)

This report, one of a series developed by the Public Health Service, is a factual presentation of conditions which exist in a specific location or area, based on data and information furnished by State, Interstate and Federal agencies concerned. This report is a brief summary of such material in the files of the Public Health Service as of the time the report is issued. The report will be revised from time to time to reflect new information and changing conditions.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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SUMMARY REPORT ON QUALITY OF INTERSTATE WATERS

LITTLE MISSOURI RIVER (INCLUDING BEAVER CREEK AND LITTLE BEAVER CREEK)

(WYOMING-MONTANA-SOUTH DAKOTA-NORTH DAKOTA)

(Data Current to January 1, 1962)

I. LOCATION

The Little Missouri River rises in the northeastern part of Wyoming and flows in a northeasterly direction crossing the Wyoming-Montana State Line at river mile 450. It continues northeast, crossing the Montana-South Dakota State Line at river mile 390 and thence northward, crossing the South Dakota-North Dakota State Line at river mile 340. The River then meanders its way northward until it reaches Cherry Creek; at this point, the River turns sharply southeast and flows into the Missouri River at Missouri River mile 1507.

Two of the interstate tributaries to the Little Missouri River included in this report are Beaver Creek and Little Beaver Creek. They join the Little Missouri River at river mile 138 and 306 respectively. Towns along the river and its tributaries are Ekalaka and Wibaux, Montana, and Marmarth Beach, and Watford City, North Dakota.

II. SOURCES OF POLLUTION

A source of interstate pollution is the town of Wibaux, Montana, which is located on Beaver Creek.

TABLE NO. 1 - BASIC DATA ON SOURCES OF POLLUTION 1/

Municipality or Industry	River Miles Above Mouth	Sewered Population	P.E. Waste Before Treatment	Nature of Wastes	Treatment Provided	P.E. Discharge to Water-course
Little Missouri River						
Wyo.-Mont. State Line	450					

1/ Data in this table is taken from PHS Publication No. 622, Municipal & Industrial Waste Facilities, 1957 Inventory, Region VI

TABLE NO. - BASIC DATA ON SOURCES OF POLLUTION

Municipality or Industry	River Miles Above Mouth	Sewered Population	P.E. Waste Before Treatment	Nature of Wastes	Treatment Provided	P.E. Discharge to Watercourse
Mont.-S.D. State Line	390					
S.D.-N.D. State Line	340					
Little Missouri River						
Little Beaver Creek	306					
Ekalaka, Mont. 2/	306-32	700	700	Municipal	Secondary	50
Mont.-N.D. State Line	306-4					
Little Missouri River						
Marmarth, N.D.	306	400	400	Municipal	Septic Tank	400
Beaver Creek	138					
Wibaux, Mont.	138-63					
Tributary	138-51					
Beach, N. D.	138-51-22					
N. D.-Mont. State Line	138-51-10					
Beaver Creek						
Mont.-N. D. State Line	138-43					
Little Missouri River						
Cherry Creek	61					
Watford City, N.D.	61-30	1,200	1,300	Municipal	Lagoon	0

To date, discharges to the Little Missouri River from the source of pollution in Montana has continued as indicated above.

2/ Based on 1961 information from the Montana State Board of Health.

TABLE NO. 2 - STREAM FLOW DATA IN cfs 3/

No. and Location of gaging station	Years of Record	Average	Maximum	Minimum
Little Missouri River near Alzada, Mont.	42	81.8	6,000	0
Little Missouri River at Camp Crook, S.D.	7	120	3,360	0
Little Missouri River at Marmarth, N.D.	22	322	45,000	0
Little Missouri River at Medora, N. D.	27	385	65,000	0
Beaver Creek at Wibaux, Mont.	22	25.3	3,780	0
Little Missouri River near Watford City, N.D.	26	573	110,000	0

III. INTERFERENCE WITH WATER USES

None.

IV. ADEQUACY OF TREATMENT MEASURES

Municipality	Treatment Needs
Marmarth, N.D.	Replacement of existing plant
Wibaux, Mont.	Replacement of existing plant

V. ACTION OF OFFICIAL AGENCIES

a. Federal and Federal-State joint action

1. The cooperative State-Public Health Service report, "Missouri-Souris Development Area Water Pollution Investigation, November, 1951", first identified this pollution problem. Additional information was published in the joint State-Public Health Service report, "A Comprehensive Program for Control of Water Pollution - Missouri Drainage Basin, July, 1953". The report

3/ U. S. Geological Survey, Surface Water Supply of the United States, 1960, Part 6-A, Missouri River Basin above Sioux City, Iowa, Geological Survey Water-Supply Paper 1709, Washington, D. C., 1961.

of November, 1951, outlined the sources and nature of pollution, status of abatement activities, and recommended degree of treatment. The report recommended a minimum of secondary treatment for Beach, N.D., and primary treatment for Wibaux, Montana, and Marmarth, North Dakota. Subsequent to this report, Beach, North Dakota, has provided secondary treatment facilities.

2. Federal action in attempting to secure pollution abatement is summarized as follows:

TABLE NO. 3 - PUBLIC HEALTH SERVICE GRANTS FOR CONSTRUCTION OF WASTE TREATMENT FACILITIES

Municipality	Date Approved	Amount	Estimated Total Cost of Project	Type of Project	Status of Project
Watford City, N.D.	5-60	$4,692	$15,640	Lagoon	Completed

b. State Action

None reported.

f. NATURE OF DELAYS IN ABATING POLLUTION

None reported.

VII. TIME SCHEDULE FOR PROPOSED REMEDIAL ACTION

None reported.

Prepared and Approved by Region VI, Kansas City 2/62

Approved by Enforcement Branch 3/62

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LITTLE MISSOURI RIVER

WYOMING-MONTANA
NORTH DAKOTA
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